

WHAT IS CLAIMED IS:

1 1. In a packet communication system having a plurality of independently
2 operating nodes, including a local node, which have limited available communication time
3 and which are capable of monitoring busy time and idle time in cyclical epochs, a method for
4 determining a load on the communication time of the local node in communication with a
5 plurality of other nodes comprising:

6 synchronizing periods of load measurement among nodes to a communication
7 epoch; and

8 factoring out the load attributed by the local node to the global load.

1 2. In a packet communication system having a plurality of independently
2 operating nodes, including a first node and a second node, which have limited available
3 communication time and which are capable of monitoring busy time and idle time in cyclical
4 epochs, a method for determining a load on the communication time of the first node with
5 said second node comprising:

6 broadcasting from the first node a first heartbeat and thereupon resetting a
7 global counter at the first node at a first epoch;

8 receiving at the second node said first heartbeat and resetting a second node
9 counter for the first node;

10 transferring traffic of the first node with the second node and accumulating
11 total traffic duration in the global counter at the first node;

12 receiving traffic from the first node at the second node and accumulating
13 second node traffic duration in a first node counter at the second node;

14 broadcasting a second heartbeat from the first node at the beginning of the
15 next epoch, including value of the global counter, and resetting the global counter for a
16 second epoch;

17 receiving the second heartbeat and the global counter value at the second
18 node; and

19 determining a net loading for the first node as viewed by the second node by
20 factoring out contribution to the global counter value during the first epoch.

1 3. The method according to claim 2 further including:

2 averaging the net loading over several epochs.

- 1 4. The method according to claim 2 further including:
2 using the net loading in selecting a best path for traffic of the second node.